(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date 23 October 2003 (23.10.2003)

PCT

(10) International Publication Number WO 03/087501 A1

(51) International Patent Classification⁷: B63B 35/32, E02B 15/10

E04H 4/16,

(21) International Application Number: PCT/AU03/00399

(22) International Filing Date: 2 April 2003 (02.04.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: PS 1593

9 April 2002 (09.04.2002) AU

(71) Applicant and

(72) Inventor: HASKI, Robert, R. [AU/AU]; 114 Hopetoun Avenue, Vaucluse, New South Wales 2030 (AU).

(72) Inventors; and

(75) Inventors/Applicants (for US only): MEYER, Allan, Dolph [AU/AU]; 8 Hartree Drive, Cherrybrook, New South Wales 2126 (AU). BERRY, Norman, Michael [AU/AU]; 7 Paling Street, Thornleigh, New South Wales 2120 (AU).

(74) Agent: GRANT, Paul, Ainsworth; P.O. Box 60, Fisher, Australian Capital Territory 2611 (AU).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

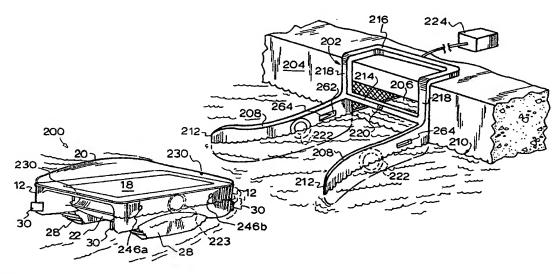
(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: DUAL DIRECTION WATER SURFACE SKIMMER AND POOL SIDE DOCKING DEVICE.



(57) Abstract: A water skimmer vessel has two hulls (12, 14) between which a debris collection net or basket-like catcher (22) is arranged. Hinged flaps (68) are provided at each end of the catcher and operate to allow inflow but block outflow of debris from the catcher. Each hull of the vessel is equiped with amoter covered by a guard (28). The vessel may move in either direction and is equipped with sensors (30) on each hull for effecting the turning and reversing of the vessel upon contact with pool skimmer box inlet (206) and the vessel can be controlled to enter the dock and permit the contents of the catcher to be discharged into the current of pool water flowing into the skimmer box.



13/087501 A1

INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU03/00399

Α.	CLASSIFICATION OF SUBJECT MATTER								
Int. Cl. 7:	E04H 4/16 B63B 35/32 E02B 15/10								
According to International Patent Classification (IPC) or to both national classification and IPC									
В.	FIELDS SEARCHED								
Minimum documentation searched (classification system followed by classification symbols) SEE ELECTRONIC DATABASES CONSULTED									
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched AU IPC: E04H 3/20 4/14, 4/16 B63B 35/00, 35/32 E02B 15/00, 15/10 US CLASS: 210/169 and 210/91									
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) DWPI JAPIO: skim collect extract remove clean clear water pool reservoir lake debris rubbish detris refuse leaves leaf litter insect oil ash power energy propel propulsion move drive traverse vessel boat pod float barge flap hinge lid cover gate dock berth discharge solar self battery automate E04H E02B B63B C02F									
С.	DOCUMENTS CONSIDERED TO BE REI	EVA	NT .						
Category*	gory* Citation of document, with indication, where appropriate, of the relevant passages								
A	GB 1516790 A (MITSUBISHI JUKOGYO KABUSHIKI KAISHA) 5 July 1978 Figure 1								
A	AU 13193/88 A (MAXEY) 15 September 1988 Figures US 4900432 A (ARNOLD et al) 13 February 1990								
A Figures 4 and 5									
X F	Further documents are listed in the cont	inuat	ion of Box C X See patent family annu	е х					
* Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular and not in conflict with the application but cited to understand the princip or theory underlying the invention									
"B" earlier	application or patent but published on or e international filing date	document of particular relevance; the claimed invention considered novel or cannot be considered to involve an when the document is taken alone	cannot be inventive step						
claim(s publica	ent which may throw doubts on priority c) or which is cited to establish the tion date of another citation or other special (as specified)	document of particular relevance; the claimed invention considered to involve an inventive step when the docum with one or more other such documents, such combination a person skilled in the art	ent is combined						
"O" document referring to an oral disclosure, use, "&" document member of the same patent family exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed									
Date of the actual completion of the international search			Date of mailing of the international search report						
12 May 2003			1 6 MAY 2003 Authorized officer						
Name and mailing address of the ISA/AU AUSTRALIAN PATENT OFFICE			Authorized officer						
PO BOX 200, WODEN ACT 2606, AUSTRALIA B-mail address: pct@ipaustralia.gov.au			MATTHEW FORWARD						
	: pct@ipaustralia.gov.au (02) 6285 3929	Telephone No: (02) 6283 2606							

INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU03/00399

		PC1/AU03/00399	
C (Continua	ion). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Releva claim	
A	US 5106492 A (DISTINTI et al) 21 April 1992 Figure 2		
A	JP 05-208187 A (HARA HEALTH KOGYO KK) 20 August 1993 Figures 2 and 14		
Α	FR 2791947 A3 (CHANTANT et al) 13 October 2000 Figure 1		-
•			
•			

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/AU03/00399

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report		Patent Family Member					
GB	1516790	AU	26761/77	BR	7704443	ЛP	53-008982
ļ		US	4128068				
AU	13193/88	NO	FAMILY				
US	4900432	NO	FAMILY				
US	5106492	NO	FAMILY				
JР	05-208187	NO	FAMILY				
FR	2791947	NO	FAMILY				
			•				END OF ANNEX